

PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

DESCRIPTION OF A NEW CISCO FROM LAKE ERIE.

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On September 21, 1915, Mr. Phillip H. Hartman, Superintendent of the State Hatchery at Erie, Pa., showed the writer a cisco which he had obtained from a Lake Erie fisherman, and which he has recently sent to me for description. The fish is so remarkable in the development of its fins as to raise a question concerning its relation to the normal forms of Lake Herring of the Great Lakes. The pectorals extend beyond the origin of the ventrals. The ventrals reach beyond the end of the anal base. The longest anal ray exceeds the depth of the body. The longest dorsal ray is more than one-third of the length of the fish without caudal.

Leucichthys macropterus new species.

The type of the species, an immature male, is 244 millimeters long without the caudal. D. 11; A. 11; scales 8-74-8; scales between occiput and dorsal fin 34; branchiostegals 8; gillrakers 8+22, the longest equal to eye; head 4.28 in length; depth 4; length of caudal peduncle 10.5; depth of caudal peduncle 12; eye $4\frac{2}{3}$ in head; long diameter of orbit equals distance from tip of snout to eye, 4 in head, and about equal to interorbital space; length of maxilla from tip of snout 3 in head; mandible very slightly projecting, $2\frac{1}{3}$ in head; distance from snout to occiput twice length of maxilla.

Distance from ventral origin to pectoral origin five-sixths of pectoral length; length of pectoral one and two-thirds times head. Length of ventral nearly twice length of head. Accessory ventral about equal to maxilla. The longest dorsal ray one and one-half times head.

The length of the base of adipose dorsal is only slightly greater than the height of the fin, and is not equal to the eye. The longest anal ray somewhat exceeds depth of body. The lower caudal rays longest, equaling length of pectoral.

Colors in formalin, upper parts pale brownish, paler below; fins all pale; eye dark bluish with traces of bronze on the iris.

The measurements are given in millimeters in the following table:

MEASUREMENTS OF *LEUCICHTHYS MACROPTERUS*.

	<i>mm.</i>
Length without caudal	244
Comparative measurements:	
Head, 4.28 in length	57
Depth, 4 in length	65
Caudal peduncle	
Length	23
Depth	20
Eye, $4\frac{2}{3}$ in head	11
Orbit, long diameter	15
Snout from eye	15
Interorbital space	16
Maxillary length from tip of snout, 3 in head	19
Mandible, very slightly projecting	25
Snout to occiput	38
Ventrals to pectorals (ventral origin to pectoral origin) .	81
Pectoral length in ventral-pectoral distance85
Pectoral length	95
Ventral origin from tip of snout	137
Ventral length	107
Accessory ventral length	18
Dorsal height (longest ray)	85
Dorsal origin from tip of snout	123
Adipose length—length of base	9
Adipose height	8
Anal height (longest ray)	70
Lower caudal rays (longest)	95

The discovery of this singular form of cisco is due to the watchfulness of Superintendent Hartman over the collections of fishes obtained by fishermen and collectors in the vicinity of the Erie Station. The specimen was caught in a gill net by the tug *Erie*, December 19 or 20, 1914, on a north course out of Erie near the boundary line between New York and Canada.

Type in U. S. National Museum, Washington, D. C., catalogue number 76,845.